

CLAIMS

1. Composition for the oxidation dyeing of keratin fibres, in particular human keratin fibres such as the hair, of the type comprising, in a medium which is suitable for dyeing, at least one oxidation dye precursor and, where appropriate, one or more couplers, characterized in that it also contains at least one nonionic amphiphilic polymer containing at least one fatty chain and at least one hydrophilic unit, with the proviso that the nonionic amphiphilic polymer is other than:

- (a) a copolymer of polyethylene glycol (containing 20 EO) ether of stearyl alcohol and of one or more lower acrylic acid esters and/or lower methacrylic acid esters,
- (b) a copolymer of polyalkylene glycol ether of  $C_{16}$ - $C_{22}$  alcohol and of one or more esters of  $C_{16}$ - $C_{22}$  carboxylic acid.

2. Composition according to Claim 1, characterized in that the nonionic amphiphilic polymers containing at least one fatty chain and at least one hydrophilic unit are chosen from the group consisting of nonionic celluloses modified with groups containing at least one fatty chain, hydroxypropyl guar modified with groups containing at least one fatty chain, polyether urethanes containing at least one fatty chain, copolymers of vinylpyrrolidone and of hydrophobic monomers containing a fatty chain,

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copolymers of C<sub>1</sub>-C<sub>6</sub> alkyl methacrylates or acrylates and of amphiphilic monomers containing at least one fatty chain, and copolymers of hydrophilic methacrylates or acrylates and of hydrophobic monomers containing at least one fatty chain.

3. Composition according to Claims 1 or 2, characterized in that the celluloses are hydroxyethyl-celluloses modified with groups containing at least one alkyl, arylalkyl or alkylaryl group.

4. Composition according to Claim 3, characterized in that the cellulose is a hydroxyethyl-cellulose modified with groups containing at least one C<sub>16</sub> alkyl group.

5. Composition according to Claims 1 or 2, characterized in that the celluloses are hydroxyethyl-celluloses modified with groups containing at least one polyalkylene glycol alkylphenyl ether group.

6. Composition according to Claim 5, characterized in that the cellulose is a hydroxyethyl-cellulose modified with groups containing at least one polyethylene glycol (15) nonylphenyl ether group.

7. Composition according to Claims 1 or 2, characterized in that the polyether urethanes are modified with at least one C<sub>8</sub>-C<sub>30</sub> alkyl or alkenyl group.

8. Composition according to Claims 1 or 2, characterized in that the vinylpyrrolidone copolymers are vinylpyrrolidone/hexadecene and vinylpyrrolidone/

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eicosene copolymers.

9. Composition according to any one of the preceding claims, characterized in that the oxidation dye precursors are chosen from ortho- or para-phenylenediamines, bis(phenyl)alkylenediamines, ortho- or para- aminophenols and heterocyclic bases, and the addition salts thereof with an acid.

10. Composition according to any one of the preceding claims, characterized in that the oxidation dye precursors are present in concentrations ranging from 0.0005 to 12% by weight relative to the total weight of the composition.

11. Composition according to any one of the preceding claims, characterized in that the couplers are chosen from meta-phenylenediamines, meta-amino-phenols, meta-diphenols and heterocyclic couplers, and the addition salts thereof with an acid.

12. Composition according to any one of the preceding claims, characterized in that the couplers are present in concentrations ranging from 0.0001 to 10% by weight relative to the total weight of the composition.

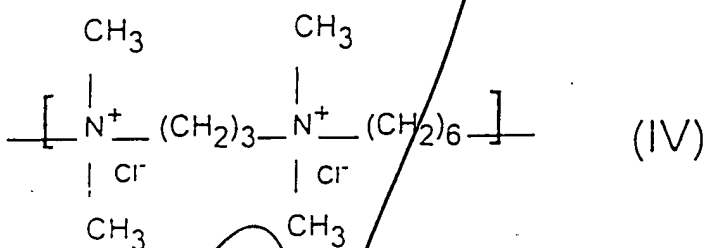
13. Composition according to any one of the preceding claims, characterized in that the addition salts with an acid of the oxidation dye precursors and of the couplers are chosen from the hydrochlorides, hydrobromides, sulphates, tartrates, lactates and acetates.

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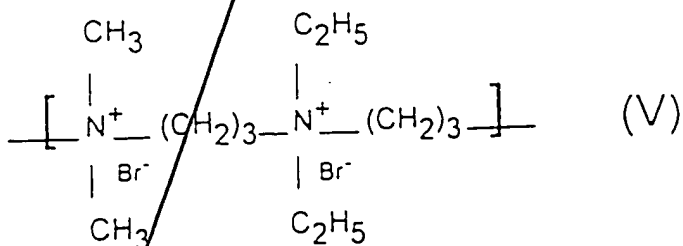
14. Composition according to any one of the preceding claims, characterized in that it also contains direct dyes.

15. Composition according to Claims 1, 2 and 7, characterized in that it also contains at least one cationic or amphoteric substantive polymer.

16. Composition according to Claim 15, characterized in that the polymer is a quaternary polyammonium polymer consisting of repeating units corresponding to formula (IV) below:



17. Composition according to Claim 15, characterized in that the polymer is a quaternary polyammonium polymer consisting of repeating units corresponding to formula (V) below:



18. Composition according to any one of the preceding claims, characterized in that it also

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contains at least one reducing agent which is present in amounts ranging from 0.05 to 3% by weight relative to the total weight of the composition.

19. Ready-to-use composition according to  
5 any one of the preceding claims, characterized in that it also contains an oxidizing agent.

20. Composition according to Claim 19, characterized in that it has a pH ranging from 4 to 11.

21. Composition according to Claim 19,  
10 characterized in that the oxidizing agent is chosen from hydrogen peroxide, urea peroxide, alkali metal bromates and ferricyanides, and persalts.

22. Composition according to Claims 19 or  
15 21, characterized in that the oxidizing agent is an aqueous hydrogen peroxide solution whose titre ranges from 2.5 to 40 volumes.

23. Composition according to any one of the preceding claims, characterized in that the nonionic amphiphilic polymers containing at least one fatty  
20 chain and at least one hydrophilic unit are used in an amount ranging from 0.05 to 10% by weight relative to the total weight of the composition applied to the fibres, and even more preferably from 0.2 to 5%.

24. Process for dyeing keratin fibres, and  
25 in particular human keratin fibres such as the hair, characterized in that it consists in applying to the fibres a dye composition (A1) as defined in any one of Claims 1 to 18, and in developing the colour in

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alkaline, neutral or acidic medium using an oxidizing agent which is added to this composition (A1) only at the time of use or which is present in a composition (B1) that is applied sequentially without intermediate rinsing.

25. Process for dyeing keratin fibres, and in particular human keratin fibres such as the hair, characterized in that it consists in applying to the fibres at least one composition (A2) containing, in a medium which is suitable for dyeing, at least one oxidation dye precursor and optionally one or more couplers, in the presence or absence of a nonionic amphiphilic polymer containing at least one fatty chain and at least one hydrophilic unit as defined in any one of Claims 1 to 8, and in developing the colour in alkaline, neutral or acidic medium using an oxidizing composition (B2) which contains an oxidizing agent and an effective amount of at least one nonionic amphiphilic polymer containing at least one fatty chain and at least one hydrophilic unit as defined in any one of Claims 1 to 8, and which is mixed with the composition (A2) only at the time of use or which is applied sequentially without intermediate rinsing.

26. Dyeing process according to Claim 25, characterized in that the composition (A2) and/or the composition (B2) contain at least one cationic or amphoteric substantive polymer.

27. Multi-compartment kit or device for

dyeing keratin fibres, and in particular human keratin fibres such as the hair, characterized in that it contains at least two compartments, one of which contains a composition (A1) as defined in any one of  
5 Claims 1 to 18, and another contains a composition (B1) comprising an oxidizing agent used in a medium which is suitable for dyeing.

28. Multi-compartment kit or device for dyeing keratin fibres, and in particular human keratin  
10 fibres such as the hair, characterized in that it contains at least two compartments, one of which contains a composition (A2) as defined in Claims 25 and 26, and another contains a composition (B2) as defined in Claims 25 and 26.

15 29. Use of an oxidation dye composition as defined in any one of Claims 1 to 23 or of a multi-compartment kit or device for dyeing as defined in Claim 27 or 28, for the oxidation dyeing of human keratin fibres such as the hair.

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